

LAMPIRAN - LAMPIRAN



Lampiran 1. Data pertambahan berat udang vaname

Perlakuan		Berat Awal (g)	Berat DOC 15 (g)	Berat DOC 30 (g)	Berat DOC 45 (g)	Pertumbuhan Berat (g)
Kontrol	P0.a	0.012	0.48	1.13	2.79	2.778
	P0.b	0.012	0.47	1.35	2.72	2.708
	P0.c	0.012	0.42	1.2	2.35	2.336
Probiotik 100 ml/kg pakan	P1.a	0.012	0.42	1.24	3.482	3.47
	P1.b	0.012	0.4	1.3	3.332	3.32
	P1.c	0.012	0.56	1.69	3.854	3.842
Probiotik 200 ml/kg pakan	P2.a	0.012	0.48	1.48	4.06	4.048
	P2.b	0.012	0.38	1.44	3.306	3.294
	P2.c	0.012	0.46	1.42	3.874	3.862
Probiotik 300 ml/kg pakan	P3.a	0.012	0.44	1.64	4.138	4.126
	P3.b	0.012	0.52	1.53	4.458	4.446
	P3.c	0.012	0.49	1.75	4.002	3.99

Lampiran 2. Data pengukuran panjang udang vaname

No	PERLAKUAN											
	Kontrol (cm)			Probiotik 100 ml/kg pakan (cm)			Probiotik 200 ml/kg pakan (cm)			Probiotik 300 ml/kg pakan (cm)		
	P0.a	P0.b	P0.c	P1.a	P1.b	P1.c	P2.a	P2.b	P2.c	P3.a	P3.b	P3.c
1	8.7	8.2	7.7	8.5	8	8	8	9	9.3	9.3	8.6	9
2	8	7.4	7.3	8.1	8.9	8.2	9	8.2	8.5	8.8	9	9.3
3	8.2	8	7.8	8	9	8.3	8	7.8	8.6	9.2	9	9.2
4	8.3	7.9	7.6	8	8	8.7	9.5	7.9	8.5	8.3	8.7	8.7
5	8.3	9	7.7	8.3	8	8.3	8.5	8.9	8.6	9.2	8.8	9
6	8.4	8.5	8.5	8	8.7	8.5	8.5	8.6	9	8.6	9	9.1
7	8.1	8.7	8.2	7.7	8	9	8.3	7.7	9	9.2	8.4	8.3
8	8	8.5	8.4	7.5	8.3	8.1	8.4	8.8	9	9.1	9	9
9	8.6	8.4	8.6	7.8	7.5	8.4	8.4	8.3	8.4	9	9.3	8.9
10	8.5	8.7	8.5	7.6	8	8.5	8.8	8.7	9.3	9.2	8.7	9.6
11	8.6	8.1	8	8.4	8.1	8.5	8	8.9	7.8	9.3	9	9.1
12	8.5	8	7.3	8.5	8	8.4	8.4	8.5	8.2	8.9	8.7	9.5
13	8.3	7.5	6.7	7.7	8	9.1	8.5	9	9	9.1	8.7	8.7
14	8.5	7.3	8	8	8	8	8.5	8.5	8.4	8.8	8	8.5
15	7.3	7	8	7.5	8	8.3	8.7	8.9	8.6	8.8	8	9
16	8.6	8.7	8	8	8.3	8.6	8.5	8.1	9.2	8.9	9	8.2
17	7	7.2	7.6	8.5	8	8.5	9.5	8.3	8.9	9	8.4	8.6
18	8.8	7.7	7.9	8	8.3	8.5	9	7.6	9	8.3	9	9.1
19	8.5	8.6	7.9	8	9.4	8.5	9.4	8.1	9.3	9.5	8.4	9.3
20	8	8.2	8.7	8.4	8.5	8.2	8.4	8.7	8	8.5	9	8.6
21	7.5	8.2	7.8	8.3	8	8.2	8.4	9	8.7	8.6	9	9.2
22	8.5	7.7	6.7	8.2	8	8.8	9	8.1	9.2	8	9	8.3
23	8.2	8	8	8	8.5	9.2	9	7.9	9.1	9	8.5	9
24	8.3	7.9	8.3	8	8.4	8.2	9	7.9	8.9	9	9.3	9.1
25	8.1	7.1	8	7.8	8.2	8.6	9	8.4	8.7	9	9	9
26	7.7	7	6.9	8	8	8.4	8.1	9.1	8.9	9.6	8.6	8.1
27	8.5	7.3	7.3	8	7.5	8.3	8.4	8.3	9.1	9.3	9.2	9.1
28	8.4	8.3	7.1	8.4	9	8.5	8.4	7.7	9	8.8	9.2	9
29	8	7.9	7.2	7.5	8.5	8.3	8.6	9.4	8.7	9.4	8.4	9.6
30	7.3	8.6	7.1	7.8	9	8.6	9	8.8	9.3	8.7	8.7	8.9
31	8	8.5	6.8	7.4	8.1	8.4	8.3	7.4	8	9.6	9	8.6
32	7	8.1	7	8	7.9	8.7	9.5	7.9	10	9.4	8.8	9.2
33	8.5	8.2	6.7	8.7	8.3	8	8.5	7.8	8.7	8	9.2	9.2
34	7	7.5	7.3	9	8	8.1	8.6	7.1	8.9	8.6	8	8.7

35	8	7.9	7.4	9	7.5	8.2	8.4	7.8	8.8	10.2	8.9	8.8
36	7.1	7.2	7.9	8	8	8.6	9.1	8.2	9.3	9.2	8.7	8.9
37	7.8	8	8.3	8.5	7.5	8.8	8.6	8.5	8.9	9.1	8	8.8
38	8.7	8.1	8.1	7.8	8	8.6	9.5	8.5	8.3	8.7	8.9	9.2
39	8.2	7.7	7.6	7.8	7.5	8.3	8.4	7.9	8.6	8.7	8	9.2
40	8.2	7	7.9	8.5	7.5	8	8.7	8.2	8.6	9.2	9.6	9.4
41	8	7.3	8.5	7.8	8.3	8.8	8.5	8.5	8.7	8.9	8.6	9.2
42	8.5	8.4	8.4	7.4	8	7.8	8.7	8	9.1	9.5	8.5	8.7
43	8	8.3	7.6	8	8	8	8.8	8.7	8.9	9.1	8.5	8.5
44	7.2	8.5	6.9	8	8.4	8	8.4	7.3	8.5	9.1	8.5	9.1
45	8.2	7	8.2	7.8	8.4	8.5	9.4	8.9	9.4	9.2	9	9
46	8.3	8.5	8.4	8	8	8	9.5	8.5	8.4	10.1	9	9.1
47	8.1	8.3	7.6	7.9	8	8.7	8.8	8.5	9.7	8.3	9.3	9.5
48	8.3	8	7	8.4	8	8	8.5	8.5	9	8.5	8.7	8.3
49	8.1	8.3	7.9	8.5	7.5	8.5	9	9	9	8.6	8	8.8
50	7.2	7.3	7.9	8.6	8.2	7.9	8.5	9.5	8.3	9.2	8.8	8.9
Rata-Rata	8.082	7.954	7.724	8.072	8.144	8.392	8.698	8.356	8.826	8.992	8.752	8.942



Lampiran 3. Data kelulushidupan

Perlakuan	Jumlah awal tebar	Jumlah akhir	Persentase	Rata-Rata
P0.a (Kontrol)	200	174	87%	87%
P0.b (Kontrol)	200	171	86%	
P0.c (Kontrol)	200	176	88%	
P1.a (Probiotik 100 ml/kg pakan)	200	186	93%	94%
P1.b (Probiotik 100 ml/kg pakan)	200	184	92%	
P1.c (Probiotik 100 ml/kg pakan)	200	183	92%	
P2.a (Probiotik 200 ml/kg pakan)	200	196	98%	98%
P2.b (Probiotik 200 ml/kg pakan)	200	194	97%	
P2.c (Probiotik 200 ml/kg pakan)	200	197	99%	
P3.a (Probiotik 300 ml/kg pakan)	200	193	97%	96%
P3.b (Probiotik 300 ml/kg pakan)	200	189	95%	
P3.c (Probiotik 300 ml/kg pakan)	200	194	97%	



Lampiran 4. Data uji kualitas air selama penelitian

1. Tabel Pengamatan Suhu Air Selama 45 Hari

No	Tanggal	Perlakuan											Satuan	
		P0 (Kontrol)			P1 (100 ml)			P2 (200ml)			P3 (300ml)			
		P0.a	P0.b	P0.c	P1.a	P1.b	P1.c	P2.a	P2.b	P2.c	P3.a	P3.b		P3.c
1	17 Maret 2022	30.6	30.5	30.4	30.8	30.8	31.2	30.5	30.6	29.9	30.8	30.9	31.0	°C
2	18 Maret 2022	31.9	31.9	31.9	32.0	32.0	32.2	31.7	31.8	31.2	32.0	32.1	32.1	°C
3	19 Maret 2022	30.6	30.7	30.5	30.7	30.8	30.8	30.4	30.7	30.0	30.8	30.7	30.7	°C
4	20 Maret 2022	29.4	29.7	29.6	29.7	29.8	29.7	29.6	29.8	29.0	29.7	29.6	29.7	°C
5	21 Maret 2022	29.0	29.1	28.9	29.3	29.4	29.5	29.9	29.1	28.6	29.2	29.4	29.5	°C
6	22 Maret 2022	29.0	29.0	29.6	29.3	29.5	29.4	29.0	29.0	29.4	29.2	29.3	29.4	°C
7	23 Maret 2022	31.9	32.9	32.6	31.5	32.1	32.4	32.3	32.4	32.0	31.8	32.0	31.8	°C
8	24 Maret 2022	29.1	29.0	29.0	29.0	29.4	29.3	29.1	29.1	29.0	28.8	29.3	29.2	°C
9	25 Maret 2022	30.4	30.1	30.2	30.6	30.8	30.8	30.2	30.1	30.2	30.7	30.8	30.2	°C
10	26 Maret 2022	30.3	30.2	30.1	30.5	30.6	30.7	30.2	30.4	30.1	30.6	30.6	30.8	°C
11	27 Maret 2022	30.7	30.6	30.6	30.7	30.8	30.9	30.5	30.8	30.6	30.9	30.8	31.0	°C
12	28 Maret 2022	29.6	29.7	29.8	29.5	29.9	29.9	29.5	29.9	29.8	29.2	29.9	29.9	°C
13	29 Maret 2022	29.9	29.8	29.8	29.9	30.0	30.0	29.8	29.9	29.9	29.8	30.0	30.0	°C
14	30 Maret 2022	29.3	29.4	29.5	29.2	29.5	29.5	29.4	29.5	29.5	29.3	29.4	29.5	°C
15	31 Maret 2022	30.2	30.1	30.3	30.3	30.4	30.4	30.1	30.3	30.2	30.4	30.3	30.3	°C
16	01 April 2022	30.2	30.1	30.0	30.3	30.3	30.3	30.1	30.3	30.2	30.2	33.0	30.4	°C
17	02 April 2022	30.6	30.0	30.5	31.0	30.9	31.0	30.3	30.0	30.7	30.9	30.9	31.0	°C
18	03 April 2022	30.5	30.0	30.5	31.0	30.9	31.0	30.4	30.0	30.7	30.9	30.9	31.0	°C
19	04 April 2022	30.6	30.5	30.6	30.7	30.9	30.7	30.4	30.6	30.7	30.8	30.6	30.8	°C
20	05 April 2022	30.5	30.5	30.7	30.8	30.7	30.6	30.3	30.5	30.9	30.7	30.6	30.7	°C
21	06 April 2022	30.4	30.3	30.4	30.8	30.8	30.7	30.2	30.5	30.7	30.6	30.5	30.8	°C
22	07 April 2022	29.9	29.9	30.1	30.2	30.2	30.1	29.8	30.0	30.2	30.0	30.8	30.2	°C
23	08 April 2022	30.2	30.1	30.2	30.4	30.2	30.1	29.9	30.2	30.2	30.3	30.3	30.2	°C

24	09 April 2022	30.2	30.2	30.4	30.5	30.5	30.5	30.0	30.3	30.4	30.4	30.4	30.3	°C
25	10 April 2022	30.9	30.9	30.1	31.4	31.4	31.4	30.6	30.1	30.2	31.5	31.3	31.4	°C
26	11 April 2022	30.3	30.4	30.3	30.5	30.5	30.6	30.2	30.4	30.5	30.7	30.5	30.6	°C
27	12 April 2022	30.1	30.3	30.2	30.6	30.4	30.5	30.0	30.2	30.4	30.4	30.3	30.5	°C
28	13 April 2022	30.3	30.3	30.4	30.0	30.6	30.8	30.2	30.2	30.5	30.8	30.6	30.8	°C
29	14 April 2022	30.6	30.4	30.5	30.5	30.7	30.9	30.3	30.4	30.6	30.6	30.8	30.8	°C
30	15 April 2022	31.3	31.0	31.3	31.6	31.5	31.6	31.0	31.1	31.3	31.6	31.6	31.7	°C
31	16 April 2022	31.2	31.0	30.9	31.2	31.2	31.3	31.0	30.8	30.9	31.8	31.5	31.6	°C
32	17 April 2022	30.9	30.7	30.8	31.0	31.0	31.1	30.6	30.7	30.8	31.0	31.2	31.1	°C
33	18 April 2022	30.4	30.3	30.5	30.4	30.8	30.6	30.2	30.4	30.5	30.0	30.6	30.4	°C
34	19 April 2022	29.7	29.6	29.7	29.5	29.7	29.5	29.6	29.7	29.9	28.8	29.6	29.3	°C
35	20 April 2022	28.8	28.6	28.7	28.7	28.8	28.7	28.7	28.7	28.7	28.7	28.8	28.5	°C
36	21 April 2022	28.2	28.0	28.1	28.2	28.3	28.1	28.1	28.1	28.1	28.6	28.2	28.0	°C
37	22 April 2022	29.2	29.1	29.1	28.3	29.3	29.2	28.9	29.0	29.1	29.1	29.3	29.3	°C
38	23 April 2022	30.8	30.7	30.9	31.4	31.3	31.1	30.4	30.8	30.9	31.2	31.2	30.0	°C
39	24 April 2022	31.0	30.8	31.0	31.5	31.3	31.2	30.6	30.0	31.0	31.2	31.3	31.0	°C
40	25 April 2022	30.4	30.3	30.6	30.9	30.8	30.6	30.3	30.6	30.6	30.6	30.7	30.4	°C
41	26 April 2022	29.7	29.6	29.8	29.9	30.0	29.9	29.6	29.7	29.8	29.7	30.0	29.6	°C
42	27 April 2022	30.1	29.9	30.1	30.5	30.2	30.3	30.0	30.1	30.2	30.2	30.4	30.3	°C
43	28 April 2022	29.4	29.3	29.5	29.5	29.6	29.5	29.9	29.4	29.5	29.3	29.6	29.2	°C
44	29 April 2022	29.4	29.3	29.6	29.4	29.6	29.4	29.8	29.5	29.6	29.4	29.3	29.4	°C
45	30 April 2022	29.4	29.3	29.5	29.5	29.6	29.5	29.9	29.4	29.5	29.3	29.6	29.2	°C

2. Tabel Pengamatan pH Air Selama 45 Hari

No	Tanggal	Perlakuan											Satuan	
		P0 (Kontrol)			P1 (100 ml)			P2 (200ml)			P3 (300ml)			
		P0.a	P0.b	P0.c	P1.a	P1.b	P1.c	P2.a	P2.b	P2.c	P3.a	P3.b		P3.c
1	17 Maret 2022	8.05	8.05	8.05	8.03	8.03	8.02	8.05	8.05	8.04	8.04	8.03	8.01	–
2	18 Maret 2022	8.03	8.02	8.02	8.02	8.05	8.03	8.05	8.05	8.05	8.03	8.03	8.03	–
3	19 Maret 2022	8.02	8.03	8.05	8.05	8.05	8.03	8.05	8.05	8.05	8.04	8.02	8.05	–
4	20 Maret 2022	8.03	8.01	8.03	8.03	8.01	8.05	8.04	8.01	8.02	8.01	8.03	8.01	–
5	21 Maret 2022	8.05	8.05	8.04	8.05	8.03	8.05	8.04	8.05	8.04	8.04	8.03	8.04	–
6	22 Maret 2022	8.05	8.03	8.04	8.02	8.04	8.01	8.05	8.05	8.01	8.02	8.03	8.01	–
7	23 Maret 2022	7.79	7.82	7.85	7.85	7.72	7.76	7.77	7.84	7.72	7.82	7.69	7.70	–
8	24 Maret 2022	8.05	8.13	8.13	8.05	8.01	8.05	8.15	8.12	8.14	8.03	8.05	8.03	–
9	25 Maret 2022	8.02	8.01	8.02	8.01	8.04	8.01	8.01	8.03	8.03	8.04	8.01	8.04	–
10	26 Maret 2022	8.01	8.01	8.01	8.03	8.05	8.02	8.01	8.04	8.01	8.04	8.03	8.02	–
11	27 Maret 2022	8.03	8.01	8.02	8.05	8.02	8.03	8.02	8.05	8.02	8.03	8.04	8.02	–
12	28 Maret 2022	8.05	8.03	8.03	8.03	8.03	8.03	8.04	8.01	8.03	8.03	8.04	8.02	–
13	29 Maret 2022	8.03	8.01	8.01	8.04	8.02	8.03	8.01	8.04	8.03	8.03	8.03	8.05	–
14	30 Maret 2022	8.03	8.01	8.02	8.03	8.01	8.03	8.01	8.03	8.03	8.02	8.03	8.02	–
15	31 Maret 2022	8.05	8.03	8.01	8.02	8.00	8.04	8.03	8.04	8.05	8.01	8.04	8.05	–
16	01 April 2022	8.03	8.05	8.03	8.04	8.03	8.03	8.04	8.03	8.04	8.01	8.03	8.04	–
17	02 April 2022	8.04	8.03	8.04	8.04	8.02	8.02	8.05	8.02	8.02	8.04	8.04	8.04	–
18	03 April 2022	8.04	8.03	8.04	8.04	8.02	8.02	8.03	8.02	8.02	8.04	8.04	8.04	–
19	04 April 2022	8.01	8.03	8.04	8.05	8.03	8.05	8.03	8.04	8.03	8.02	8.03	8.05	–
20	05 April 2022	8.04	8.04	8.05	8.03	8.02	8.03	8.04	8.03	8.02	8.05	8.03	8.05	–
21	06 April 2022	8.03	8.03	8.02	8.02	8.02	8.03	8.05	8.05	8.01	8.04	8.03	8.03	–
22	07 April 2022	8.03	8.04	8.04	8.03	8.05	8.02	8.03	8.05	8.02	8.03	8.04	8.03	–
23	08 April 2022	8.04	8.04	8.03	8.04	8.03	8.05	8.04	8.03	8.03	8.04	8.01	8.04	–

24	09 April 2022	7.96	7.94	7.91	7.96	7.97	7.97	7.97	7.96	7.93	8.00	8.01	7.98	–
25	10 April 2022	7.91	7.93	7.92	7.87	7.94	7.95	7.93	7.94	7.92	8.16	7.92	7.94	–
26	11 April 2022	7.96	7.96	7.95	7.92	8.00	8.00	7.97	7.90	7.97	8.02	8.03	8.00	–
27	12 April 2022	7.92	7.92	7.93	8.05	7.95	7.96	7.94	7.92	7.90	7.99	7.99	7.96	–
28	13 April 2022	7.96	7.96	7.91	7.92	7.90	7.97	7.96	7.93	7.94	8.02	7.98	7.93	–
29	14 April 2022	7.91	7.91	7.89	7.90	7.89	7.92	7.91	7.88	7.92	8.00	7.95	7.93	–
30	15 April 2022	7.81	7.83	7.83	7.78	7.80	7.84	7.83	7.83	7.83	7.92	7.84	7.86	–
31	16 April 2022	7.87	7.86	8.01	7.92	8.01	8.02	7.85	8.01	8.00	8.03	7.93	7.92	–
32	17 April 2022	7.76	7.83	7.81	7.76	7.89	7.83	7.76	7.80	7.83	7.89	7.76	7.81	–
33	18 April 2022	7.71	7.71	7.75	7.64	7.66	7.74	7.71	7.73	7.75	7.84	7.74	7.70	–
34	19 April 2022	7.94	7.96	8.01	7.82	7.90	7.83	7.95	7.97	7.98	7.84	7.83	7.79	–
35	20 April 2022	7.61	7.58	7.67	7.60	7.62	7.65	7.66	7.70	7.66	7.68	7.59	7.64	–
36	21 April 2022	7.56	7.65	7.62	7.52	7.54	7.56	7.59	7.57	7.63	7.60	7.54	7.60	–
37	22 April 2022	7.68	7.64	7.68	7.64	7.66	7.67	7.64	7.64	7.67	7.77	7.63	7.65	–
38	23 April 2022	7.58	7.71	7.71	7.65	7.70	7.68	7.68	7.71	7.72	7.67	7.65	7.65	–
39	24 April 2022	7.67	7.65	7.65	7.62	7.67	7.63	7.65	7.64	7.68	7.65	7.62	7.64	–
40	25 April 2022	7.62	7.63	7.63	7.56	7.60	7.64	7.63	7.63	7.66	7.66	7.62	7.66	–
41	26 April 2022	7.61	7.61	7.63	7.60	7.64	7.62	7.61	7.59	7.63	7.65	7.99	7.63	–
42	27 April 2022	7.65	7.61	7.64	7.62	7.62	7.63	7.62	7.60	7.65	7.66	7.60	7.60	–
43	28 April 2022	7.54	7.54	7.55	7.53	7.53	7.53	7.54	7.48	7.56	7.53	7.53	7.53	–
44	29 April 2022	7.65	7.61	7.64	7.66	7.60	7.60	7.53	7.60	7.65	7.62	7.63	7.60	–
45	30 April 2022	7.54	7.54	7.55	7.53	7.53	7.53	7.54	7.48	7.56	7.53	7.53	7.53	–

3. Tabel Pengamatan Salinitas Air Selama 45 Hari

No	Tanggal	Perlakuan												Satuan
		P0 (Kontrol)			P1 (100 ml)			P2 (200ml)			P3 (300ml)			
		P0.a	P0.b	P0.c	P1.a	P1.b	P1.c	P2.a	P2.b	P2.c	P3.a	P3.b	P3.c	
1	17 Maret 2022	33	33	32	32	32	32	33	33	32	32	32	33	mg/L
2	18 Maret 2022	31	31	32	32	32	32	31	32	32	32	32	33	mg/L
3	19 Maret 2022	32	31	32	32	32	31	32	32	32	32	32	32	mg/L
4	20 Maret 2022	33	32	33	33	33	33	32	33	33	33	33	33	mg/L
5	21 Maret 2022	33	33	33	33	33	33	33	33	33	33	33	33	mg/L
6	22 Maret 2022	33	33	33	33	33	32	33	33	33	33	32	32	mg/L
7	23 Maret 2022	31	31	31	31	31	31	31	31	31	31	31	31	mg/L
8	24 Maret 2022	33	33	33	33	33	33	33	32	32	33	33	33	mg/L
9	25 Maret 2022	33	33	33	33	33	33	33	33	33	33	33	33	mg/L
10	26 Maret 2022	33	33	33	33	33	33	33	33	33	33	33	33	mg/L
11	27 Maret 2022	30	30	33	30	30	30	30	30	30	30	30	30	mg/L
12	28 Maret 2022	33	33	33	33	33	33	33	33	33	33	33	33	mg/L
13	29 Maret 2022	33	33	33	33	33	33	33	33	33	33	33	33	mg/L
14	30 Maret 2022	33	33	33	33	33	33	33	33	33	33	33	33	mg/L
15	31 Maret 2022	33	33	33	33	32	33	33	33	33	32	33	33	mg/L
16	01 April 2022	33	33	33	33	33	33	33	33	33	33	33	33	mg/L
17	02 April 2022	33	33	33	32	33	33	33	33	33	33	32	33	mg/L
18	03 April 2022	33	33	33	33	33	33	33	33	33	33	33	33	mg/L
19	04 April 2022	33	33	33	33	33	33	33	33	33	33	33	33	mg/L
20	05 April 2022	33	33	33	33	33	33	33	33	33	33	33	33	mg/L
21	06 April 2022	33	33	33	33	33	33	33	33	33	33	33	33	mg/L
22	07 April 2022	33	33	33	33	33	33	33	33	33	33	33	33	mg/L
23	08 April 2022	33	33	33	33	33	33	33	33	33	33	33	33	mg/L

24	09 April 2022	33	33	33	33	33	33	33	33	33	33	33	33	mg/L
25	10 April 2022	33	33	33	33	33	33	33	33	33	33	33	33	mg/L
26	11 April 2022	33	33	33	33	33	33	33	33	33	33	33	33	mg/L
27	12 April 2022	33	33	33	33	33	33	33	33	33	33	33	33	mg/L
28	13 April 2022	33	33	33	33	33	33	33	33	33	33	33	33	mg/L
29	14 April 2022	33	33	33	33	33	33	33	33	33	33	33	33	mg/L
30	15 April 2022	33	33	33	33	33	33	33	33	33	33	33	33	mg/L
31	16 April 2022	33	33	33	33	33	33	33	33	33	33	33	33	mg/L
32	17 April 2022	33	33	33	33	33	33	33	33	33	33	33	33	mg/L
33	18 April 2022	33	33	33	33	33	33	33	33	33	33	33	33	mg/L
34	19 April 2022	33	33	33	33	33	33	33	33	33	33	33	33	mg/L
35	20 April 2022	33	33	33	33	33	33	33	33	33	33	33	33	mg/L
36	21 April 2022	33	33	33	33	33	33	33	33	33	33	33	33	mg/L
37	22 April 2022	33	33	33	33	33	33	33	33	33	33	33	33	mg/L
38	23 April 2022	33	33	33	33	33	33	33	33	33	33	33	33	mg/L
39	24 April 2022	33	33	33	33	33	33	33	33	33	33	33	33	mg/L
40	25 April 2022	33	33	33	33	33	33	33	33	33	33	33	33	mg/L
41	26 April 2022	33	33	33	33	33	33	33	33	33	33	33	33	mg/L
42	27 April 2022	33	33	33	33	33	33	33	33	33	33	33	33	mg/L
43	28 April 2022	33	33	33	33	33	33	33	33	33	33	33	33	mg/L
44	29 April 2022	33	33	33	33	33	33	33	33	33	33	33	33	mg/L
45	30 April 2022	33	33	33	33	33	33	33	33	33	33	33	33	mg/L

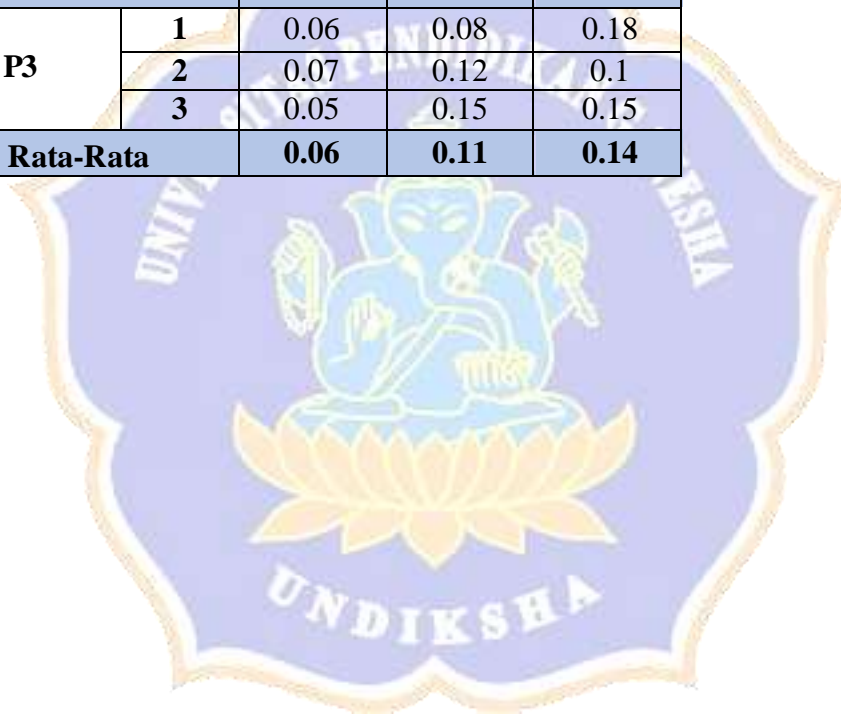
4. Tabel Pengamatan DO (Oksigen Terlarut) Air Selama 45 Hari

No	Tanggal	Perlakuan											Satuan	
		P0 (Kontrol)			P1 (100 ml)			P2 (200ml)			P3 (300ml)			
		P0.a	P0.b	P0.c	P1.a	P1.b	P1.c	P2.a	P2.b	P2.c	P3.a	P3.b		P3.c
1	17 Maret 2022	5.32	5.25	5.41	5.44	5.41	5.38	5.55	5.32	5.45	5.31	5.57	5.32	mg/L
2	18 Maret 2022	5.91	5.84	5.79	6.68	6.64	5.80	6.24	5.96	6.81	6.54	5.74	5.87	mg/L
3	19 Maret 2022	6.49	6.48	6.31	6.45	6.50	6.15	7.01	6.62	6.41	6.67	6.42	6.25	mg/L
4	20 Maret 2022	5.75	5.58	5.80	5.65	5.56	5.03	5.95	5.52	5.83	5.72	5.46	4.76	mg/L
5	21 Maret 2022	6.21	6.47	5.90	5.87	6.65	6.36	6.31	6.26	6.22	6.52	6.36	6.25	mg/L
6	22 Maret 2022	6.02	6.25	5.98	6.00	5.74	5.81	6.07	5.74	5.86	6.10	6.16	6.01	mg/L
7	23 Maret 2022	4.75	4.83	4.83	5.60	4.58	4.92	5.24	4.51	4.61	4.79	5.22	4.85	mg/L
8	24 Maret 2022	6.36	5.92	6.06	6.17	5.92	6.30	6.30	6.15	6.40	7.03	6.22	6.39	mg/L
9	25 Maret 2022	6.24	5.94	6.64	6.59	6.02	6.17	5.92	5.81	6.02	6.08	5.90	5.93	mg/L
10	26 Maret 2022	6.03	6.07	6.14	6.19	5.79	5.78	6.10	5.80	6.20	6.01	6.02	6.11	mg/L
11	27 Maret 2022	5.74	5.69	5.82	6.09	5.91	5.94	5.99	5.99	5.99	6.04	5.92	5.84	mg/L
12	28 Maret 2022	6.42	5.89	6.34	6.39	5.86	5.88	6.35	5.91	5.78	6.12	6.03	5.92	mg/L
13	29 Maret 2022	6.69	5.77	5.84	5.95	5.91	5.91	6.10	5.04	5.76	6.05	5.90	5.96	mg/L
14	30 Maret 2022	6.13	6.12	5.71	5.95	6.10	5.98	6.12	6.20	6.22	6.05	6.28	6.04	mg/L
15	31 Maret 2022	5.90	5.90	6.13	5.75	5.74	6.13	5.70	5.60	6.00	5.65	5.67	5.90	mg/L
16	01 April 2022	6.06	6.13	5.80	6.20	5.08	6.10	6.27	5.73	6.25	5.98	6.16	6.51	mg/L
17	02 April 2022	6.33	5.91	5.91	5.73	5.75	5.66	6.23	5.75	5.96	5.86	6.19	6.01	mg/L
18	03 April 2022	6.34	5.92	5.91	5.73	5.75	5.66	6.24	5.75	5.96	5.86	6.19	6.01	mg/L
19	04 April 2022	5.75	5.60	5.70	5.95	5.58	5.80	5.65	5.66	5.66	5.95	6.02	5.80	mg/L
20	05 April 2022	5.92	5.89	5.72	5.86	5.51	6.15	5.55	5.65	5.73	5.99	5.85	5.98	mg/L
21	06 April 2022	5.88	5.98	5.68	5.74	5.74	5.93	6.11	5.57	5.49	6.81	5.97	5.98	mg/L
22	07 April 2022	5.89	5.67	5.89	6.10	5.98	6.23	5.75	5.74	5.90	6.22	6.15	6.29	mg/L
23	08 April 2022	6.14	6.00	5.96	6.11	5.96	6.12	6.26	5.63	6.88	5.99	6.11	6.30	mg/L

24	09 April 2022	6.01	5.76	5.75	5.89	5.95	5.87	6.53	5.73	5.73	5.93	5.72	5.95	mg/L
25	10 April 2022	5.77	5.74	5.93	5.29	6.00	5.74	5.89	5.62	5.88	5.58	5.63	5.58	mg/L
26	11 April 2022	6.23	6.01	5.56	5.61	5.77	5.65	5.55	5.67	5.58	5.94	5.73	5.51	mg/L
27	12 April 2022	5.97	5.63	5.62	5.50	5.93	6.04	5.58	5.67	5.56	5.89	5.68	5.98	mg/L
28	13 April 2022	5.40	5.53	5.62	6.00	5.62	5.75	5.62	5.55	5.75	5.45	5.99	5.73	mg/L
29	14 April 2022	5.60	5.62	5.46	5.57	5.28	5.57	5.67	5.51	5.64	5.30	5.62	5.67	mg/L
30	15 April 2022	5.44	5.29	5.50	5.36	5.31	5.19	5.40	5.53	5.23	5.35	5.59	5.44	mg/L
31	16 April 2022	5.64	5.59	5.66	5.78	5.68	5.74	5.34	5.64	5.83	5.38	5.47	5.54	mg/L
32	17 April 2022	5.89	5.46	5.33	5.45	5.45	5.25	5.26	5.19	5.56	5.52	5.21	5.62	mg/L
33	18 April 2022	5.00	5.31	5.73	5.29	5.03	5.71	5.03	5.46	5.20	5.40	5.00	4.95	mg/L
34	19 April 2022	5.86	5.87	5.32	5.78	6.12	5.68	5.79	5.86	5.77	6.40	5.55	5.59	mg/L
35	20 April 2022	5.00	5.40	5.36	5.55	5.31	5.10	5.30	4.91	5.51	5.24	5.19	5.34	mg/L
36	21 April 2022	5.43	5.31	5.77	4.99	4.99	5.65	5.47	5.34	5.32	5.55	5.49	5.29	mg/L
37	22 April 2022	5.40	5.44	5.71	5.40	5.78	5.03	5.45	5.58	5.55	5.53	4.70	5.25	mg/L
38	23 April 2022	5.35	5.49	5.81	5.71	5.46	5.50	5.26	5.49	5.81	5.93	5.47	5.42	mg/L
39	24 April 2022	5.57	5.19	5.58	5.25	5.24	5.51	5.31	5.62	4.90	5.57	5.27	5.34	mg/L
40	25 April 2022	5.68	5.20	5.82	4.82	5.09	5.34	5.49	5.40	5.08	5.40	5.39	5.27	mg/L
41	26 April 2022	5.19	5.21	5.59	5.59	5.32	5.50	5.24	5.16	5.20	5.75	5.20	5.26	mg/L
42	27 April 2022	5.32	4.79	5.77	5.44	5.22	5.28	5.10	4.92	5.21	5.52	5.12	5.19	mg/L
43	28 April 2022	5.27	5.29	5.25	5.50	5.58	5.62	5.35	5.14	5.40	5.66	5.64	5.63	mg/L
44	29 April 2022	5.32	5.14	5.40	5.60	5.67	5.62	5.10	5.09	5.08	5.55	5.68	5.63	mg/L
45	30 April 2022	5.27	5.29	5.25	5.50	5.58	5.62	5.35	5.14	5.40	5.66	5.64	5.63	mg/L

5. Laporan hasil uji parameter amonia

Perlakuan		Minggu Ke		
		2	4	6
P0	1	0.09	0.15	0.18
	2	0.09	0.18	0.21
	3	0.07	0.16	0.2
Rata-Rata		0.08	0.16	0.20
P1	1	0.05	0.09	0.09
	2	0.05	0.08	0.09
	3	0.05	0.09	0.1
Rata-Rata		0.05	0.09	0.09
P2	1	0.06	0.08	0.11
	2	0.06	0.11	0.1
	3	0.05	0.11	0.12
Rata-Rata		0.06	0.10	0.11
P3	1	0.06	0.08	0.18
	2	0.07	0.12	0.1
	3	0.05	0.15	0.15
Rata-Rata		0.06	0.11	0.14



Lampiran 5. Uji *One Way ANOVA*

1. Berat

Tests of Normality

	Perlakuan	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Berat	P0	.331	3	.	.865	3	.282
	P1	.275	3	.	.943	3	.540
	P2	.294	3	.	.921	3	.457
	P3	.270	3	.	.949	3	.563

a. Lilliefors Significance Correction

Descriptives

Berat

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
P0	3	2.6073	.23757	.13716	2.0172	3.1975	2.34	2.78
P1	3	3.5440	.26875	.15516	2.8764	4.2116	3.32	3.84
P2	3	3.7347	.39280	.22678	2.7589	4.7104	3.29	4.05
P3	3	4.1873	.23411	.13516	3.6058	4.7689	3.99	4.45
Total	12	3.5183	.65020	.18770	3.1052	3.9315	2.34	4.45

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Berat	Based on Mean	.678	3	8	.589
	Based on Median	.152	3	8	.926
	Based on Median and with adjusted df	.152	3	6.462	.925
	Based on trimmed mean	.616	3	8	.624

ANOVA

Berat

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.975	3	1.325	15.691	.001
Within Groups	.676	8	.084		
Total	4.650	11			

Multiple Comparisons

Dependent Variable: Berat

	(I) Perlakuan	(J) Perlakuan	Mean	Std. Error	Sig.	95% Confidence Interval	
			Difference (I-J)			Lower Bound	Upper Bound
Tukey HSD	P0	P1	-.93667*	.23726	.018	-1.6965	-.1769
		P2	-1.12733*	.23726	.006	-1.8871	-.3675
		P3	-1.58000*	.23726	.001	-2.3398	-.8202
	P1	P0	.93667*	.23726	.018	.1769	1.6965
		P2	-.19067	.23726	.851	-.9505	.5691
		P3	-.64333	.23726	.100	-1.4031	.1165
	P2	P0	1.12733*	.23726	.006	.3675	1.8871
		P1	.19067	.23726	.851	-.5691	.9505
		P3	-.45267	.23726	.297	-1.2125	.3071
	P3	P0	1.58000*	.23726	.001	.8202	2.3398
		P1	.64333	.23726	.100	-.1165	1.4031
		P2	.45267	.23726	.297	-.3071	1.2125

*. The mean difference is significant at the 0.05 level.



Berat

	Perlakuan	N	Subset for alpha = 0.05		
			1	2	3
Tukey HSD ^a	P0	3	2.6073		
	P1	3		3.5440	
	P2	3		3.7347	
	P3	3		4.1873	
	Sig.			1.000	.100
Duncan ^a	P0	3	2.6073		
	P1	3		3.5440	
	P2	3		3.7347	3.7347
	P3	3			4.1873
	Sig.			1.000	.445

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

2. Panjang

Tests of Normality

	Perlakuan	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Panjang	P0	.241	3	.	.974	3	.689
	P1	.303	3	.	.908	3	.413
	P2	.282	3	.	.935	3	.509
	P3	.310	3	.	.898	3	.380

a. Lilliefors Significance Correction

Descriptives

Panjang

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
P0	3	6.7700	.18141	.10473	6.3194	7.2206	6.57	6.93
P1	3	7.0527	.16787	.09692	6.6356	7.4697	6.92	7.24
P2	3	7.4767	.24298	.14029	6.8731	8.0803	7.21	7.68
P3	3	7.7453	.12662	.07311	7.4308	8.0599	7.60	7.84
Total	12	7.2612	.42309	.12214	6.9923	7.5300	6.57	7.84

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Panjang	Based on Mean	.614	3	8	.625
	Based on Median	.176	3	8	.909
	Based on Median and with adjusted df	.176	3	6.696	.909
	Based on trimmed mean	.568	3	8	.651

ANOVA

Panjang

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.697	3	.566	16.615	.001
Within Groups	.272	8	.034		
Total	1.969	11			

Multiple Comparisons

Dependent Variable: Panjang

	(I) Perlakuan	(J) Perlakuan	Mean	Std. Error	Sig.	95% Confidence Interval	
			Difference (I-J)			Lower Bound	Upper Bound
Tukey HSD	P0	P1	-.28267	.15065	.309	-.7651	.1998
		P2	-.70667*	.15065	.007	-1.1891	-.2242
		P3	-.97533*	.15065	.001	-1.4578	-.4929
	P1	P0	.28267	.15065	.309	-.1998	.7651
		P2	-.42400	.15065	.086	-.9064	.0584
		P3	-.69267*	.15065	.008	-1.1751	-.2102
	P2	P0	.70667*	.15065	.007	.2242	1.1891
		P1	.42400	.15065	.086	-.0584	.9064
		P3	-.26867	.15065	.347	-.7511	.2138
	P3	P0	.97533*	.15065	.001	.4929	1.4578
		P1	.69267*	.15065	.008	.2102	1.1751
		P2	.26867	.15065	.347	-.2138	.7511

*. The mean difference is significant at the 0.05 level.

Panjang

	Perlakuan	N	Subset for alpha = 0.05		
			1	2	3
Tukey HSD ^a	P0	3	6.7700		
	P1	3	7.0527	7.0527	
	P2	3		7.4767	7.4767
	P3	3			7.7453
	Sig.			.309	.086
Duncan ^a	P0	3	6.7700		
	P1	3	7.0527		
	P2	3		7.4767	
	P3	3		7.7453	
	Sig.			.097	.112

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

3. Kelulushidupan

Tests of Normality

	Perlakuan	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Kelulushidupan	P0	.219	3	.	.987	3	.780
	P1	.253	3	.	.964	3	.637
	P2	.253	3	.	.964	3	.637
	P3	.314	3	.	.893	3	.363

a. Lilliefors Significance Correction

Descriptives

Kelulushidupan

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
P0	3	173.67	2.517	1.453	167.42	179.92	171	176
P1	3	184.33	1.528	.882	180.54	188.13	183	186
P2	3	195.67	1.528	.882	191.87	199.46	194	197
P3	3	192.00	2.646	1.528	185.43	198.57	189	194
Total	12	186.42	8.979	2.592	180.71	192.12	171	197

Test of Homogeneity of Variances

Kelulushidupan		Levene Statistic	df1	df2	Sig.
		Based on Mean	.708	3	8
Based on Median	.205	3	8	.890	
Based on Median and with adjusted df	.205	3	5.729	.889	
Based on trimmed mean	.659	3	8	.600	

ANOVA

Kelulushidupan

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	850.917	3	283.639	63.031	.000
Within Groups	36.000	8	4.500		
Total	886.917	11			

Multiple Comparisons

Dependent Variable: Kelulushidupan

	(I)	(J)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Tukey HSD	P0	P1	-10.667*	1.732	.001	-16.21	-5.12
		P2	-22.000*	1.732	.000	-27.55	-16.45
		P3	-18.333*	1.732	.000	-23.88	-12.79
	P1	P0	10.667*	1.732	.001	5.12	16.21
		P2	-11.333*	1.732	.001	-16.88	-5.79
		P3	-7.667*	1.732	.010	-13.21	-2.12
	P2	P0	22.000*	1.732	.000	16.45	27.55
		P1	11.333*	1.732	.001	5.79	16.88
		P3	3.667	1.732	.227	-1.88	9.21
P3	P0	18.333*	1.732	.000	12.79	23.88	
	P1	7.667*	1.732	.010	2.12	13.21	
	P2	-3.667	1.732	.227	-9.21	1.88	

*. The mean difference is significant at the 0.05 level.



Kelulushidupan

	Perlakuan	N	Subset for alpha = 0.05		
			1	2	3
Tukey HSD ^a	P0	3	173.67		
	P1	3		184.33	
	P3	3			192.00
	P2	3			195.67
	Sig.			1.000	1.000
Duncan ^a	P0	3	173.67		
	P1	3		184.33	
	P3	3			192.00
	P2	3			195.67
	Sig.			1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Lampiran 6. Dokumentasi tahap persiapan



Lampiran 7. Dokumentasi Proses Fermentasi dan pemberian pakan



Lampiran 8. Dokumentasi manajemen kualitas air



Lampiran 9. Dokumentasi proses uji kualitas air



Lampiran 10. Dokumentasi proses pengambilan data



Lampiran 11. Lokasi Penelitian



Lampiran 12. Alat dan Bahan

a. Alat

		
Bak fiber	Seser	Ember
		
Baskom	Timbangan Digital	Scoring Pad
		
Gayung	Selang Penyiponan	Seser

		
<p>Selang Aerasi</p>	<p>Waring</p>	<p>Glass Beaker</p>
		
<p>Pressure Filter</p>	<p>Saklar Pompa</p>	<p>UV Filter</p>
		
<p>Do Meter</p>	<p>pH Meter</p>	<p>Refrakto Meter</p>

		
Termo Meter	Kolori Meter	Tabung Reaksi
		
Rak Tabung Reaksi	Pipet Ukur	Filter Ukur
		
Botol Sampel	Pipet Tetes	Milimeter Blok

b. Bahan

		
<i>Post larva 12</i>	Probiotik	Alkohol
		
Molase	Detergen	Pakan Komersial

Lampiran 13. Riwayat Hidup

RIWAYAT HIDUP



Penulis Putu Dicky Wahyudi Mas Pratama Putra, lahir di Gianyar pada 16 Januari 2000. Penulis berkebangsaan Indonesia. Pada 2006 – 2012 penulis menempuh Pendidikan di SD Negeri 1 Buruan, dan dilanjutkan pada tahun 2012 – 2015 di SMP Negeri 1 Blahbatuh dan pada 2015 – 2018 menyelesaikan Pendidikan di SMA Negeri 1 Sukawati. Pada tahun 2018 penulis menempuh Pendidikan tinggi di Universitas Pendidikan Ganesha pada program studi Akuakultur Angkatan kedua. Selama menempuh Pendidikan di Undiksha, penulis mengikuti berbagai kegiatan dalam organisasi seperti HMJ Biologi Perikanan dan Kelautan juga penulis mengikuti berbagai kegiatan diluar kampus yaitu di organisasi Himpunan Mahasiswa Perikanan Indonesia (HIMAPIKANI) wilayah 4.